

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

 ATTORNEY'S DKT No.
005950-855

 APPLICATION No.
10/784,885

 APPLICANT
Jeremy DAHL et al.

 FILING DATE
February 24, 2004

 GROUP
1764

U.S. PATENT DOCUMENTS

Examiner Initials	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication (MM-DD-YYYY)
	Number	Kind Code (if known)		
	5,410,166		Kennel	04/25/95
	5,601,966		Kumar et la.	02/11/97
	5,984,752		Tanaka et al.	11/16/99
	6,008,502		Deguchi	12/28/99
	6,359,378		Patterson et al.	03/19/02
	3,457,318		Capaldi et al.	7/22/69
	3,832,332		Thompson	8/27/74
	4,142,036		Feinstein et al.	2/27/79
	4,273,561		Fernandez-Moran Villalobos	6/16/81
	4,952,747		Alexander et al.	8/28/90
	4,952,748		Alexander et al.	8/28/90
	4,952,749		Alexander et al.	8/28/90
	4,982,049		Alexander et al.	1/1/91
	4,996,079		Itoh	2/26/91
	5,015,758		Pilgrim et al.	5/14/91
	5,017,734		Baum et al.	5/21/91
	5,019,660		Chapman et al.	5/28/91
	5,019,665		Partridge et al.	5/28/91
	5,053,434		Chapman	10/1/91
	5,146,314		Pankove	09/08/92
	5,238,705		Hayashi et al.	8/24/93
	5,245,104		Cullick	9/14/93
	5,246,198		Kurihara	09/1993
	5,256,391		Chen et al.	10/26/93
	5,268,513		Shen	12/7/93
	5,298,666		Shen	3/29/94
	5,306,851		Wu et al.	4/26/94
	5,308,661		Feng et al.	5/3/94
	5,313,094		Beyer et al.	5/17/94
	5,319,518		Blood	6/7/94
	5,347,063		Shen et al.	9/13/94
	5,367,051		Narang et al.	11/22/94

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5,369,213	Shen	11/29/94
5,380,947	Chen et al.	1/10/95
5,382,684	Moini et al.	1/17/95
5,394,733	Acholla	3/7/95
5,397,488	Chen et al.	3/14/95
5,397,558	Miyanaga et al.	03/1995
5,410,092	Shen	4/25/95
5,414,189	Chen et al.	5/9/95
5,416,188	Chiang et al.	5/16/95
5,430,193	Shen	7/4/95
5,449,531	Zhu et al.	9/12/95
5,455,072	Bension et al.	10/3/95
5,461,184	Swanson	10/24/95
5,462,680	Brois et al.	10/31/95
5,462,776	Gruen	10/31/95
5,498,812	Bradway et al.	3/12/96
5,540,977	Vogelsang et al.	7/30/96
5,547,748	Ruoff et al.	8/20/96
5,576,355	Chen et al.	11/19/96
5,578,901	Blanchet-Fincher et al.	11/26/96
5,628,920	Fuesser et al.	05/1997
5,635,581	Chiang et al.	6/3/97
5,695,847	Browne	12/9/97
5,739,376	Bingel	4/14/98
5,767,578	Chang et al.	6/16/98
5,773,921	Keesmann et al.	6/30/98
5,780,101	Nolan et al.	7/14/98
5,849,130	Browne	12/15/98
5,861,135	Tanabe et al.	1/19/99
5,874,175	Li	2/23/99
5,874,775	Shiomi et al.	2/23/99
5,880,154	Boukrinskaia et al.	3/9/99
5,907,189	Mertol	5/25/99
5,925,465	Ebbesen et al.	7/20/99
5,958,523	Bradic	9/28/99
5,965,202	Taylor-Smith et al.	10/12/99

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	5,976,909		Shiomi et al.	11/2/99
	6,080,470		Dorfman	6/27/00
	6,162,412		Fujimori et al.	12/19/00
	6,174,780		Robinson	1/16/01
	6,187,427		Taylor-Smith et al.	2/13/01
	6,211,463		Fabis	4/3/01
	6,222,113		Ghoshal	4/24/01
	6,235,851		Ishii et al.	5/22/01
	6,250,984		Jin et al.	6/26/01
	6,256,996		Ghoshal	7/10/01
	6,261,942		Zhou et al.	7/17/01
	6,277,766		Ayers	8/21/01
	6,286,212		Eaton	9/11/01
	6,300,410		Shachat et al.	10/9/01
	6,312,768		Rode et al.	11/6/01
	6,316,084		Claus et al.	11/13/01
	6,316,826		Yamamoto et al.	11/13/01

FOREIGN PATENT DOCUMENTS

Examiner Initials	Foreign Patent Document		Country	Date of Publication (MM-DD-YYYY)	Translation	
	Number	Kind Code (if known)			Yes	no
	WO 95/11472		PCT	4/27/95		
	EP 0399851		Europe	11/20/96		
	WO 95/06019		PCT	03/02/1995		
	WO 92/13909		PCT	08/20/1992		

NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Include name of author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
	Forbes, R.G., "Low-macroscopic-field electron emission from carbon films and other electrically nanostructured heterogeneous materials; hypothese about emission mechanism", 45:779-808 (2001).
	Zhigilei, L.V., et al., "Vibrational dynamics of the CH strching mode of H-terminated diamond structures", 374:333-344 (1997).
	Zhu, W., et al., "Low-Field Electron Emission from Undoped Nanostructured Diamond", 282:1471-1473 (1998).
	Aczel, et al., "Stability of Adamantane and its Derivatives to Coal-liquefaction Conditions, and its implications toward the organic structure of Coal," <i>Fuel</i> , Vol. 58, pp. 228-230, (3/1979)
	Ansell, M., "Diamond Cleavage," publication unknown (4 pages)

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	APPLICANT Jeremy DAHL et al.	
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	Balaban, et al., Systemic Classification and Nomenclature of Diamond Hydrocarbons-I, <i>Tetrahedron</i> , 34, pp. 3599-3606, (1978)
	Badziag, P., et al., "Nanometre-sized Diamonds are More Stable than Graphite," <i>Nature</i> , Vol. 343, pp. 244-245, and 517 (1/1990)
	Bagrii, Ye, et al., "Catalytic Breakdown of Paraffinic Hydrocarbons in the Presence of Adamantanes," <i>Petrol. Chem USSR</i> , Vol. 30, No. 2, pp. 131-134, (1990)
	Baughman, GL, "Dibromination of Adamantane," Publication Unknown, Vol. 29, pp. 238-240 (January 1964).
	Bhushan, B., (editor), "Influence of Film Structure and Composition on Some Typical Properties," <i>Modern Tribology Handbook</i> , Vol. Two, p. 891.
	Bhushan, B., (editor), "Self-Assembled Monolayers for Controlling Hydrophobicity and/or Friction and Wear," in <i>Modern Tribology Handbook</i> , Ch. 25, pp. 909-929.
	Bobrov, K., et al., "Atomic-scale Imaging of Insulating Diamond through Resonant Electron Injection," <i>Nature</i> , Vol. 413, pp. 616-619 (10/11/01).
	Bott, Von K., "Synthese von Adamantan-und Norbornan chloressigsuren mit Trichlorathylen," <i>Angew. Chem.</i> , Vol. 79, pp. 943-945 (1967).
	Broich, F., "Carbonsauresynthesen mit 1,1-Dichlorathylen," <i>Angew. Chem.</i> , vol. 78, pp. 932-936 (1966).
	Cammas, S., et al., "Poly(β -malic acid): Obtaining High Molecular Weights by Improvement of the Synthesis Route," <i>Polymer</i> , Vol. 37, No. 18, pp. 4215-4220 (1996).
	Chung, et al., Recent Developments in High-Energy Density Liquid Fuels, <i>Energy Fuels</i> , 13, pp. 641-649, (1999).
	Courtney, T., et al., "The Chemistry of Diamantane: Part 1 - Synthesis and Some Functionalisation Reactions," <i>J.C.S. Perkin I</i> , pp. 2691-2696 (1972).
	Dahl, J., et al., Diamondoid Hydrocarbons as Indicators of Natural Oil Cracking, <i>Nature</i> , 399, pp. 54-57, (1999)
	Das, M., (editor), "Diamond-Like Amorphous Carbon Films" as presented at Physics of Novel Materials, Proceedings of the Tenth Physics Summer School, Canberra, Australia, January 13-31, 1997, p. 221.
	Dresselhaus, MS, et al., "Nanotechnology in Carbon Materials," <i>Nanotechnology</i> , Ch. 7, pp. 285-329, AIP Press (1999)
	Drexler, Eric K., <i>Nanosystems: Molecular Machinery Manufacturing and Computation</i> , John Wiley & Sons, pp.238-249, (1992)
	Erdemir, Ali, et al., "Tribology of Diamond, Diamond-Like Carbon and Related Films," <i>Modern Tribology Handbook</i> , Vol. Two, Ch. 24, CRC Press LLC, pp. 871-908, (1999).
	Fort, Jr., et al., Adamantane: Consequences of the Diamondoid Structure, <i>Chem. Rev.</i> , 64, pp. 277-300, (1964)
	Gruen, D.M., "Applications of Ultrananocrystalline Diamond Films," publication unknown, pp. 313-317 (January 2000).

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<input checked="" type="checkbox"/>	Gruen, D.M., "Microstructure and Grain Boundaries of Ultrananocrystalline Diamond Films," publication unknown, pp. 307-312, (January 2000).
<input type="checkbox"/>	Gruen, D.M., "Nucleation of Ultrananocrystalline Diamond Films," publication unknown, pp. 303-306 (January 2000).
<input type="checkbox"/>	Haaf, W., "Untersuchungen uber die Ritter-Reaktion," <i>Jahrg-96</i> , pp. 3359-3369 (1963) (In German).
<input type="checkbox"/>	Hala, V.S., et al., "Analyse Und Verwendung von Pyrolyseol," <i>Jahrgang</i> , pp. 85-88, (2/1971) In German- English Abstract on page 85.
<input type="checkbox"/>	Koch, H. et al., "Direkte Syntese der Adamantan-carbonsaure-(1)," <i>Eingengangen Am.</i> , 29, p. Z 944 (1960).
<input type="checkbox"/>	Kopidakis, G., et al., "Discrete Breathers in Realistic Models: Hydrocarbon Structures," <i>Physica B</i> , Vol. 296, pp. 237-250 (2001).
<input type="checkbox"/>	Kulisch, W., "Nucleation of Diamond," <i>Deposition of Diamond-Like Superhard Materials</i> , Ch. 4.2, pp. 134-141, Springer-Verlag, Berlin-Heidelberg, (1999).
<input type="checkbox"/>	Kulisch, W., "Table 1. Physical Constants for C ₆₀ Molecules and for Crystalline C ₆₀ ," <i>Deposition of Diamond-Like Superhard Materials</i> , p. 290, Springer-Verlag, Berlin-Heidelberg, (1999).
<input type="checkbox"/>	Liaw, Der-Jang, et al., "Synthesis and Characterization of new Polyamides and Polyimides Prepared from 2,2-bis[4-(4-aminophenoxy)phenyl]adamantane," <i>Macromol. Chem. Phys.</i> , 200, No. 6, pp. 1326-1332 (1999)
<input type="checkbox"/>	Lifshitz, et al., "The Mechanism of Diamound Nucleation from Energetic Species", <i>Science</i> 297:1531-1533 (2002).
<input type="checkbox"/>	Lin, et al., Natrual Occurrence of Tetramantane (C ₂₂ H ₂₂), Pentamantane (C ₂₆ H ₃₂) and Hexamantane (C ₃₀ H ₃₆) in a Deep Petroleum Reservoir, <i>Fuel</i> , 74:10, pp. 1512-1521, (1995)
<input type="checkbox"/>	McKervery, Synthetic Approaches to Large Diamondoid Hydrocarbons, <i>Tetrahedron</i> , 36, pp. 971-992, (1980)
<input type="checkbox"/>	Machacek, V., et al., "Let Od Objeveni Adamantanu," <i>Chemicke Listy/svazek</i> , 76, pp. 753-761, (1982) (Russian - English Abstract on p. 761).
<input type="checkbox"/>	Moine, L., et al., "Polymers of Malic Acid Conjugated with the 1-adamantyl Moiety as Lipophilic Pendant Group," <i>Polymer</i> , Vol. 38, No. 12, pp. 3121-3127 (1997).
<input type="checkbox"/>	Moiseev, IK, et al., "Reactions of Adamantanes in Electrophilic Media," <i>Russian Chem. Reviews</i> , Vol. 68, No. 12, pp. 1001-120 (1999).
<input type="checkbox"/>	Oya, A, et al., "Carbonization of Adamantanes to a Graphitizable Carbon," <i>Fuel</i> , Vol. 60, pp. 667-669, (8/1981).
<input type="checkbox"/>	Petrov, A., "Hydrocarbons of Adamantane Series as Indices of Petroleum Catagenesis Process," <i>Advances in Organic Geo Chemistry</i> , 6 th International Meeting on Organic Geochemistry, pp. 517-522 (1973).
<input type="checkbox"/>	Prawer, S., "The Wonderful World of Carbon," appearing in <i>Physics of Novel Materials</i> , Proceedings fo the Tenth Physics Summer School, Canberra, Australia, pp. 205-234, January 13-31, 1997.
<input checked="" type="checkbox"/>	Prusova, D., "Liquid Chromatography of Adamantanes and Carbon Adsorbents, <i>J. Chrom</i> , 234, pp.


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	INFORMATION DISCLOSURE STATEMENT BY APPLICANT	

	1-11, (1982).
	Piekarczyk, "Crystal Growth of CVD Diamond and Some of Its Peculiarities", <i>Crystal Research and Technology</i> 34(5-6):553-563 abs only (1999).
	Rollmann, L., et al., "Adamantanes from Petroleum with Zeolites," <i>Catalyst Today</i> , Vol. 31, pp. 163-169 (1996).
	Rouhi, A., et al., "Tinkertoy Dreams: Someday, Computers May be Run by Electronic Circuits Based on Single Giant Molecules," <i>Science and Technology</i> , pp. 46-49 (7/30/01).
	Sandia National Laboratories (2000), World's First Diamond Micromachines Created at Sandia, Press Release, (2/22/2000), www.Sandia.gov
	Schleyer, P., et al., "Nonacyclo[11.7.1.1 ^{2,18} .0 ^{3,16} .0 ^{4,13} .0 ^{5,10} .0 ^{6,14} .0 ^{7,11} .0 ^{15,20}]-Docosane ¹ , a Bastard ² Tetramantane," <i>J. of the Am. Chem. Soc.</i> , 90:8, letter to the editor, (8/28/68).
	Shen, M., et al., "Finite <i>T_d</i> Symmetry Models for Diamond: From Adamantane to Superadamantane (C ₃₅ H ₃₆), <i>J. Am., Chem. Soc.</i> , Vol. 114, No. 2, pp 497-505, (1992).
	Smith, G., et al., "Some Reactions of Adamantane and Adamantane Derivatives," <i>publication unknown</i> , Vol. 26, pp. 2207-2212 (1961).
	Stetter, H., et al., "Monofunktionelle Adamantan-Derivate," <i>Angew. Chem.</i> , Vol. 71, pp.429-430 (1959).
	Supryadkina, N.Y., et al., "Catalytic Dealkylation of Alkyladamantanes," <i>Petrol. Chem., USSR</i> , Vol. 28, No. 2, pp. 103-110, (1988)
	Tachikawa, T., "Assembly and Packaging," <i>ULSI Technology</i> , Ch. 10, pp. 530-586, McGraw-Hill, (1996).
	Timp, Gregory (editor), "Table 2.1 - Diamond Like Materials," <i>Nanotechnology</i> , Ch. 2, p. 28, AIP Press (1999).
	Tominaga, K., et al., "Next-generation Fine Chemicals Raw Material-Adamantane," <i>Chem. Econ. & Eng. Review</i> , Vol. 17, No. 10, pp. 23-36 (10/1985).
	Vodicka, L, et al., "High Performance Liquid Chromatography of Halogeno Derivatives of Adamantane and Diamantane," <i>J. Chrom</i> , 270, pp. 199-205, (1983).
	von R. Schleyer, P., et al., "The Preparation and Reactivity of 2-Substituted Derivatives of Adamantane" <i>Frick Chemical Laboratory</i> , Vol. 83, pp. 182-187 (1961).
	Windischmann, H., "CVD Diamond for Thermal Management," <i>publication unknown</i> , Chapter C2.2, pp. 410 - 415 (January 2002).
	Wingert, W., "G.c.-m.s. Analysis of Diamondoid Hydrocarbons in Smackover Petroleums," <i>Fuel</i> , Vol. 71, pp. 37-42, (1/1992)
	Wolf, S., (editor), "Dielectric materials for Multilevel Interconnects," <i>Silicon Processing for the VLSI Era</i> , Ch. 4.3.2, pp. 194-199, Lattice Press, (1990).
	Yokoyama, T., et al., "Selective Assembly on a Surface of Supramolecular Aggregates with Controlled Size and Shape," <i>Letters to Nature</i> , Vol. 413, pp. 619-621, (10/11/01).
	Zhu, W., et al., "Novel Cold Cathode Materials," <i>Vacuum Microelectronics</i> , Ch. 6, pp. 247-287, John Wiley & Sons, Inc., (2001).

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